DOCUMENT RESUME

ED 413 019 JC 970 575

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TITLE Personality, Learning Style, Gender, and Ethnic Characteristics of Students Attending Supplemental Instruction Spring of 1997 at the University of Central Florida.
INSTITUTION University of Central Florida, Orlando.
PUB DATE 1997-10-00
NOTE 15p.; Paper presented at the Annual Teaching/Learning Conference (Ashland, KY, October 10-11, 1997).
PUB TYPE Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Cognitive Style; *College Students; Comparative Analysis; Ethnic Groups; Higher Education; Hispanic Americans; *Personality Measures; *Self Evaluation (Individuals); Sex Differences; *Student Characteristics; *Supplementary Education; White Students
IDENTIFIERS Learning Style Inventory; University of Central Florida

ABSTRACT

A study was conducted to gather information on students participating in supplemental instruction (SI) at the University of Central Florida in spring 1997. Using Long's Personality Checklist, 163 SI students classified themselves as aggressive-independent (i.e., highly energetic, frank, and confrontational); aggressive-dependent (i.e., highly energetic, but apologetic when confronted); passive-independent (i.e., not energetic, but stubborn and strong-willed); or passive-dependent (i.e., not energetic and needing approval) and as phobic, compulsive, impulsive, or hysteric. Kolb's Learning Style Inventory was also administered to this group, with respondents classifying their cognitive styles as accommodator (i.e., leaders, risk-takers, and achievers); assimilator (i.e., planners, theorists, and analysts); diverger (i.e., creators, artistic, and sensitive); or converger (i.e., problem-solvers, deducers, and decision-makers). In addition, gender, ethnicity, and science/non-science status was determined for 1,013 SI students signing research consent forms. Findings included the following: (1) although the majority of SI students were White and female with aggressive-dependent personality styles, science students displayed assimilator and converger learning styles, while non-science students displayed accommodator learning styles; (2) Hispanics were the second largest ethnic group at 18.6%, with 42.1% identifying their learning style as assimilator and 26.3% as divergent; and (3) Black and Hispanic students showed the least inclination toward the converger learning style, while it was one of the main styles displayed by White students. Contains 17 references. (BCY)

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ED 413 019

Personality, Learning-style, Gender, and Ethnic Characteristics of Students Attending Supplemental Instruction Spring of 1997 at the University of Central Florida

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Presented at the

Annual Teaching/Learning Conference

October 10-11, 1997

Ashland, Kentucky

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Personality, Learning-style, Gender, and Ethnic Characteristics of Students Attending Supplemental Instruction Spring of 1997 at the University of Central Florida

Theoretical Background of Supplemental Instruction

Supplemental Instruction (SI) was first developed at the University of Missouri, Kansas City by Martin (Martin, et al., 1983) and involves identifying the "high-risk" course rather than the "high-risk" student, is proactive, integrates study skills with the content of the course, holds the study sessions in classrooms near the academic departments, encourages collaborative learning, and is completely voluntary. Study sessions are scheduled three or four times a week with an expert student directing students in thinking, questioning, and problem-solving skills, test taking strategies, learning styles, reading their college text, memory strategies, and taking lecture notes. Numerous learning theorists such as such as Piaget, Vygotsky, Tinto, and Johnson support the SI learning model.

Supplemental Instruction sessions assist students in learning strategies that allow them to become actively involved with the course content. Learning theorist Piaget states that students must construct their own knowledge in order to understand and use it (Blais, 1988). This construction involves actively thinking about and discussing the major concepts and terms related to the field of study. Good SI sessions model thinking behavior that causes students to actively integrate and relate new information to their background knowledge or schema (organized frameworks of knowledge) that they already possess. Arons and Karplus (1976) found that 50% of entering freshmen could not produce abstract reasoning skills. If many students are operating at the concrete level, then students need examples, experiences, and modeling of thinking at that level in order to bring them from the concrete to the more abstract levels of thinking such as inference, application, analysis, and synthesis (Piaget & Inhelder, 1958).

Vygotsky (1978) introduced the concept called "The Zone of Proximal Development" that describes the gap that exists between the current knowledge of an individual student and the higher levels of learning that an expert student has in a particular discipline. Through the continued interaction during the SI study sessions with the SI leader, the novice learners are able to extend their abilities to the higher levels of thinking and problem solving of the expert student.

SI sessions follow cooperative learning techniques as discussed and developed by various authors (Tomlinson, 1989; Whitman, 1988; Johnson et al., 1991). The SI model of group learning allows student interaction and practice with the course concepts in a non-threatening environment that is conducive to successful learning. Students are arranged in small groups to work on handouts, discuss issues, or solve problems related to the course content.

One of the by-products of the SI program is that the study sessions and the cooperative groups that are formed increase the students' connectedness to the university. In Tinto's Model of Student Retention (Tinto in Spann, 1990; Tinto, 1987), he reports that the decisions of students to leave a college reflect the experiences of the students within the college environment. The study groups and the time the students spend in interaction with the SI leader and each other aids students' social as well as academic integration into the university and encourages success and retention in school.

Classes for SI are traditionally chosen when a course has a history of a 30% or higher D,W,F rate. Traditionally, the program has been evaluated by comparing the means of the SI and Non-SI students' grade point averages (GPAs) at the end of the course, as well as looking at the A and B and D,W, F rates of the course. This past year we have added to the quantitative evaluation with a qualitative evaluation that profiled students' personality types and traits and their learning styles.

SI students filled out Long's Personality Checklist and Kolb's Learning-Style Inventory. Through the use of these tools, a profile of students attending the SI sessions is beginning to be built. Comparisons were made between science and non-science majors on the variables of personality, learning style, gender, and ethnicity. Differences within gender and ethnicity as related to personality and learning style were also addressed. As a student profile is developed, this information will be shared with the instructors and departments with whom the SI program is collaborating to provide important feedback on learner characteristics and thus impact instruction.

Long's Personality Checklist

Dr. William Long, an adolescent pediatrician, defined reaction patterns he had observed in his medical practice and developed the Long reactive Behavior Patterns that has been clinically documented over the past twenty years. These patterns have been taught at the University of Mississippi Medical School to be used with both adolescent and parental counseling. Cioffi (1995) developed a checklist called Long Adolescent Behavior Descriptors that identified the types and traits of the reaction pattern, and Wiens (1995) applied a scaling technique to the descriptors that enhanced the measurement capabilities. In 1996 Dziuban extended this research by developing a self-report instrument that was used in the Supplemental Instruction Research.

The Student Behavior Checklist was given to the SI participants to gain an understanding of the type of students who attend SI sessions. This Checklist described four main types of students: *Aggressive-Independent*, *Aggressive-Dependent*, *Passive-Independent*, and *Passive-Dependent*. The *Aggressive-Independent* type is characterized by high energy levels, speaking frankly, little need for approval, taking risks, and being confrontational; while the *Aggressive-Dependent* type is characterized by high energy levels, needing approval, expressing positive feelings, performing above ability, apologizing when confronted, and being highly motivated. The third type, *Passive-Independent*, is characterized by low energy levels, not needing approval, withdrawing from confrontations, working alone, stubbornness, and a strong will, while the fourth type,

Passive-Dependent, is characterized by low energy levels, needing approval, little anger, giving and receiving affection, compliant, and average academic achievement.

Also, four auxiliary traits observed in all personalities in varying degrees (0-4) and arrangements were presented. These traits are *Phobic* (characterized by narrowly focused and unrealistic fears), *Compulsive* (characterized by habitual self-discipline and efficient organization), *Impulsive* (characterized by quick, unthinking risk-taking), and *Hysteric* (characterized by dramatic emotional presentation). Students identified the categories that applied to them.

Within the SI population of 163 students, 48.8% described themselves as *Aggressive-Dependent*, 22% *Aggressive-Independent*, 17.9% *Passive-Dependent*, and 11% *Passive-Independent*. Then the student population was divided between science (n = 119) and non-science (n = 44) majors, the highest percentage still held with 51.2% of the science majors and 42.2% of the non-science majors responding as *Aggressive-Dependent* personality type. Differences were noted between science and non-science majors on each of these measures. Twenty-two point four percent of the science majors were *Aggressive-Independent* as compared to the non-science majors' 22.4%, 16% of the science majors were *Passive-Dependent* compared to 22.2% of the non-science majors, and 10.4% of the science majors were *Passive-Independent* compared to 13.3% of the non-science majors. The percentages of the non-science majors were more evenly distributed throughout the personality types than the science majors' percentages were.

In comparing the personality traits, 61% of the total SI group identified themselves as *Compulsive*, 43% as *Hysteric*, 33% as *Phobic*, and 22% as *Impulsive*. Comparing science and non-science majors, significant differences using the chi-square statistical test were identified between the two groups on the *Compulsive* trait (science 62.7%; non-science 47.8%) and on the *Hysteric* trait (science 42.1%; non-science 36.5%). Differences, although not significant, were also found between the two groups on the *Phobic* trait (science 32.5%; non-science 30.4%) and *Impulsive* trait (science 16.7%; non-science 13%). Again, a more even distribution was noted among the percentages of the non-science students' personality triats than the science students' traits.

SI Ethnic Percentages

Students, SI and Non-SI, in the SI courses who had signed a Consent Form for Research totaled 1013. The ethnicity of these students was represented by the following percentages: White, 69.8%; Black, 9.5%; Hispanic, 14.2%; Asian, 5.5%; and Other, 1.0%. We divided the SI students and the Non-SI students and compared the ethnicity of the two groups. The following percentages were found within the SI group: White, 65.5%; Black, 7.9%; Hispanic, 18.6%; Asian, 7.9%; and 0.0% Other. These ethnic percentages were found within the Non-SI group: White, 71.5%; Black, 10%; Hispanic, 12.4%; Asian, 4.7%; and Other, 1.4%. Both the SI Hispanic and Asian percentages were higher than in the Non-SI and total populations, whereas, the White and Black SI population percentages were lower than in the total population percentages.

Table 1
Personality and Learning Styles Among Spring1997 SI Students at UCF

	Total	Science Majors	Non-Science
	N=163	N=119	N=44
Kolb's Learning-styles			
Assimilator	38.0%	42.9%	25.0%
Accommodator	18.4%	15.1%	27.3%
Diverger	16.6%	14.3%	22.7%
Converger	27.0%	27.7%	25.0%
Long's Personality Checklist			
Aggressive-Independent	22.0%	22.4%	22.2%
Passive-Independent	11.0%	10.4%	13.3%
Aggressive-Dependent	48.8%	51.2%	42.2%
Passive-Dependent	17.9%	16.0%	22.2%
Personality Traits			
Phobic	33.0%	32.5%	30.4%
Compulsive	61.0%	62.7%	47.8%
Impulsive	22.0%	16.7%	13.0%
Hysteric	43.0%	42.1%	36.5%

Table 2
Ethnicity Percentages within SI Courses at UCF Spring 1997

	Total	SI	Non-SI
	N=998	N=290	N=708
White	69.8%	65.5%	71.5%
Black	9.5%	7.9%	10.0%
Hispanic	14.2%	18.6%	12.4%
Asian	5.5%	7.9%	4.7%
Other	1.0%	0.0%	1.4%

SI Personality Type Percentages within Ethnicity

When SI personality types were compared, the following percentage differences were found within the different categories of ethnicity. Fifty-one percent of White students identified themselves as *Aggressive-Dependent*, 28.6% as *Aggressive-Independent*, 12.9% as *Passive-Dependent*, and 7.2% as *Passive-Independent*. Sixty-three percent of Black students identified themselves as *Aggressive-Dependent*, 18.2% as *Aggressive-Independent*, 18.2% as *Passive-Dependent*, and no Black students identified themselves

as *Passive-Independent*. Fifty-five percent of Hispanic students identified themselves as *Aggressive-Dependent*, 25% as *Passive-Dependent*, 10% as *Aggressive-Independent*, and 10% as *Passive-Independent*. Forty-one percent of Asian students identified themselves as *Aggressive-Dependent*, 25% as *Aggressive-Independent*, 25% as *Passive-Dependent*, and 8.3% as *Passive-Independent*. These variations within ethnicity suggest that different cultures encourage certain personality types. Axelson (1993, p.15) in his book, Counseling and Development in a Multicultural Society, states "Ultimately, cultural experiences and personality are linked to become one's identity, which affects one's behavior..."

Table 3
Personality Within Ethnicity Spring 1997 SI Students

	Aggressive-Independent	Passive-Independent	Aggressive-Dependent	Passive-Dependent
White	28.6%	7.1%	51.4%	12.9%
Black	18.2%	0.0%	63.6%	18.2%
Hispanic	10.0%	10.0%	55.0%	25.0%
Asian	25.0%	8.3%	41.7%	25.0%

SI Personality Trait Percentages within Ethnicity

Personality traits were also compared within the category of ethnicity and the following percentages were found. Fifty-four percent of White students identified themselves as *Compulsive*, 44.4% as *Hysteric*, 30.6% as *Phobic*, and 15.3% as *Impulsive*. Seventy-two percent of Black students identified themselves as *Compulsive*, 50% as *Hysteric*, 25% as *Impulsive*, and 20% as *Phobic*. Hispanic students identified themselves as 65% *Compulsive*, 50% *Hysteric*, 25% *Impulsive*, and 20% *Phobic*. Forty-one percent of Asian students identified themselves as *Compulsive*, 41% as *Hysteric*, 33% as *Phobic*, and 8.3% as *Impulsive*. Within the context of ethnicity, the percentages of the personality traits varied considerably. Research suggests that there are reasons why this occurs. Further research into these differences among ethnic groups might prove interesting and beneficial to understanding different cultures and lead to better understanding and communication between educators and those being educated.

Table 4

Personality Traits Within Ethnicity

Spring 1997 SI Students

	Phobic	Compulsive	Impulsive	Hysteric
White	30.6%	54.2%	15.3%	44.4%
Black	27.3%	72.7%	18.2%	50.0%
Hispanic	20.0%	65.0%	25.0%	50.0%
Asian	33.3%	41.7%	8.3%	41.7%

SI Gender Percentages

The total group (SI and Non-SI students) gender percentages were as follows: female, 60.6% and male, 39.4%. Within the SI group the gender percentages changed with females being slightly more (66.4%) and males being slightly less (33.6%) than the total. The Non-SI students revealed a lower percentage of females (58.2%) and a higher percentage of males (41.8%) when compared to the total and the SI groups.

Table 5

SI Gender Percentages UCF Spring 1997

	Total	SI	Non-SI
	N=1005	**N=292**	**N=713**
Female	60.6%	66.4%	58.2%
Male	39.4%	33.6%	41.8%

SI Gender and Personality Types

Variations occurred within the categories of male and female across personality types. Females identified themselves as 58.4% *Aggressive-Dependent* compared to 38.9% of males. In the *Aggressive-Independent* category, 19.5% of females identified themselves as such compared to 33.3% of males. Fifteen percent of the females identified themselves as *Passive-Dependent* compared to 19.4% of the males. In the *Passive-Independent* category, 6.5% of females identified themselves as such compared to 8.3% of males. [Table 6]

SI Gender and Personality Traits

Percentages varied within the male and female categories across personality traits. Sixty-one percent of females identified themselves as *Compulsive* while 46% of the males

identified themselves as such. Forty-eight percent of the females identified themselves as *Hysteric* compared to 40.5% of the males. Thirty-one percent of the females were *Phobic* compared to 24.3% of the males. Eighteen percent of the females were *Impulsive* compared to 13.5% of the males. [Table 6]

Kolb's Learning-Style Inventory

In addition to Long's personality checklist of types and traits, we looked at the students' learning styles and compared them within disciplines, gender, and ethnicity. With Kolb's Learning-Style Inventory, (Kolb, 1985; Serrell, 1983) students had to rank order from one to four, (four being how you learn best and one being the least) twelve sets of four learning situations such as: I am an intuitive person; I look at all sides of issues; I like to analyze things; I like to try things out. From these twelve sets, the four cognitive learning styles of Accommodator (leader, risk-taker, achiever), Assimilator (planner, theorist, analyst), Diverger (creator, artist, sensitivity), and Converger (problem-solver, deducer, decision-maker) were evolved. These styles were then related to career majors in college. For example, business majors tend to exhibit the Accommodator learning style. The inventory was originally designed to be used within the college environment and was normed on a diverse student population (McCarthy, 1987).

LSI and Science and Non-science Majors

Among the total group of SI students, 38% identified themselves as Assimilators, 27% as Convergers, 18.5% as Accommodators, and 16.6% as Divergers. The group was divided into science and non-science majors, and it was found that 42.9% of science majors were Assimilators compared with 25% of non-science majors; 27.7% of science majors were Convergers compared with 25% of non-science majors; 15.1% of science majors were Accommodators compared with 27.3% of the non-science majors; and 14.3% of the science majors were Divergers compared with 22.7% of the non-science majors. Overall, the science majors were mainly Assimilators and Convergers while the non-science majors were more evenly distributed in their learning style preferences. These findings agreed with the correlation between the learning styles and the college majors that Kolb had identified based on his experiential learning theories (McCarthy, 1987). [Table 1]

LSI and Gender Differences

The attribute of gender produced variations within the learning styles. Females (36.1%) and males (45.9%) both obtained their highest percentage within the Assimilator style, however, with a 9% difference favoring the males. The second highest for both groups was the Converger style with the females at 29.2% and the males at 24.3%with a 5% difference favoring the females. Both males and females were almost even regarding the Accommodating style with females obtaining 16.7% and males 16.2%. The Diverger style was higher for females with 18.1% than for males with 13.5%, close to a 5% difference. When these percentages were compared to the normed percentages for females, the SI percentages were noticeably different. The norm for female Convergers was 14.8% compared to the SI's 29.2%; the norm for female Assimilators was 27.5 compared to the SI's 36%; the norm for female Divergers was 25% compared to the SI's

18%; and finally the norm for female Accommodators was 32.7% compared to the SI's 18%. These percentage differences reflected the high percentage of female science majors who have learning styles characterized by the Converger and Assimilator styles. Conversely, the female SI students' percentages for Accommodate and Diverger styles were lower, reflecting the lower percentage of non-science female students in this sample (McCarthy, p.81).

Table 6

Gender Distributions Across Learning Styles and Personality

Spring 1997 SI Students

	Female	**Male**
	N=72	N=37
Kolb's Learning-styles		
Assimilator	36.1%	45.9%
Accommodator	16.7%	16.2%
Diverger	18.1%	13.5%
Converger	29.2%	24.3%
Long's Personality Checklist		
Aggressive-Independent	19.5%	33.3%
Passive-Independent	6.5%	8.3%
Aggressive-Dependent	58.4%	38.9%
Passive-Dependent	15.6%	19.4%
Personality Traits		
Phobic	30.8%	24.3%
Compulsive	61.5%	45.9%
Hysteric	48.1%	40.5%
Impulsive	17.9%	13.5%

LSI and Ethnic Differences

Learning style percentages showed contrasts within the context of ethnicity. White students presented equal percentages with the Assimilator and Converger styles both at 35.7%. The next highest percentage was the Accommodator style at 17.1% and the least percentage was 11.4% in the Diverger style. In contrast, Black students were highest in

the Assimilator style at 44.4% and next highest in the two styles of Accommodator at 22.2% and the Diverger at 22.2% with the Converger style lowest with 11.1%. Hispanics again were highest with the Assimilator syle percentage of 42.1%, next highest with the Diverger style of 26.3%, third highest with the Accommodator style at 21.1%, and the least percentage of 10.5% in the Converger style. Asians obtained the highest percentage of all the ethnic groups with the Assimilator style of 54.5%. Their next highest and the highest percentage again of all the ethnic groups was a 27.3% in the Divergent style. Their next lowest percentage was 18.2% in the Converger style with none in the Accommodator style.

Two factors affected these percentages. The first was that two-thirds of the total group were science majors and this affected the high percentage of males, females, and ethnic groups showing highest in the Assimilator and Convergent styles. The other factor affecting these outcomes was due to the small sample size, which was not representative of all of the groups with 70 White, 9 Black, 19 Hispanic, and 11 Asian students. However, this is a beginning and we will be adding to this data throughout the next semester as well as adding characteristics of Non-SI students to use as a comparison group.

Table 7

Learning-style Percentages within Ethnicity

Spring 1997 SI Students

		Assimilator	Accommodator	Diverger	Converger
	Number				
White	(70)	35.7%	17.1%	11.4%	35.7%
Black	(9)	44.4%	22.2%	22.2%	11.1%
Hispanic	(19)	42.1%	21.1%	26.3%	10.5%
Asian	(11)	54.5%	0.0%	27.3%	18.2%

Conclusions

Profile of Science Majors

A picture of the SI student as a science major or non-science major at UCF is emerging. The majority of the science students attending the SI sessions in the spring of 1997 were White and female with an *Aggressive-Dependent* personality type that exhibited *Compulsive* and *Hysteric* personality traits and were chiefly characterized by Assimilator and Converger learning styles. These students have high energy levels, look to others for approval, express positive feelings toward people and learning environments, are highly motivated, generally perform above their ability, and apologize when confronted. Their personality traits include habitual self-discipline, efficient organization combined with a dramatic emotional presentation. Their learning style strengths involve abstract thinking combined with active experimentation as in planning and creating models, defining

problems, developing theories, problem-solving, deductive reasoning, sequential and analytical thinking, and experimenting with new ideas. Students with these attributes learn best in the left-brain mode. They generally do well in engineering, computer science, medicine, applied science, education, teaching, researching, and financing.

Profile of Non-Science Majors

The majority of the non-science majors attending the SI sessions in the spring of 1997 were White and female with an *Aggressive-Dependent* personality type that exhibited *Compulsive* and *Hysteric* personality traits and were chiefly characterized by the Accommodator learning style. These students have high energy levels, look to others for approval, express positive feelings toward people and learning environments, are highly motivated and generally perform above their ability, and apologize when confronted. Their personality traits include habitual self-discipline, efficient organization combined with a dramatic emotional presentation. The Accommodator learning style is characterized by influencing and leading others, risk-taking, interpersonal skills, and personal involvement. They learn best in the right-brain mode. They excel in management, public or educational administration, accounting, marketing, business, government, public relations, and sales.

Personality Profile of Minority Groups

These are the characteristics of the majority of the students coming to SI sessions; however, there remains a significant group of students who do not fall into these main categories. The second highest percentage of students that came to the SI sessions was the Hispanic students at 18.6%. This percentage was higher than in the total Hispanic population of 14.2% and even higher than the Non-SI Hispanic population of 12.4%. Fifty-five percent of Hispanic students identified themselves as *Aggressive-Dependent* with high energy and motivation and needing approval from others. Their next highest category was *Passive-Dependent* at 25% with low energy and motivation yet needing approval from others. Personality types and traits influence the manner in which students learn. Hispanic people are a highly social, group-oriented culture who in class talk amongst themselves as part of their learning style. Black students had the highest percentage of *Aggressive-Dependent* personality types at 63.6%, and Asian students were the lowest ethnic group with 41.7% *Aggressive-Dependent* personality types.

Learning-style Profile of Minority Groups

In their learning style, Hispanics identified themselves most often as Assimilators at 42.1% and Divergers at 26.3%. Divergers are the least identified learning style of the White students at 11.4%, yet, the second highest for Hispanics (26.3%) and Asians (27.3%). The Divergent style is characterized by imaginative ability, sensitivity to people and values, and recognizing problems. Divergers identify with right brain functions of global, holistic, spatial, intuitive, thinking, whereas, Convergers identify with left brain functions of analytical, logical, language, independent thinking. The careers related to this learning style involve the arts and entertainment as well as service organizations. Blacks (11.1%) and Hispanics (10.5%) showed the least inclination toward the Converger learning style and Asians with 18.2% identified Converger as the third lowest. White students, however, chose Converger and Assimilator as their two main styles both at 35.7%.

Application of Learning-style and Personality Differences

Based on these percentages, students from different cultures show inclinations toward different learning styles and personality types and traits. Instructors need to be aware of these differences in personalities and learning styles among the different groups of students that they teach. Therefore, information should not be presented in one domain; rather, a variety of approaches should be utilized to maximize the learning of the diverse nature of students in college classrooms.

For instance, Assimilators learn by thinking through ideas. They take in information logically, process it, and integrate that knowledge with their own observations. They enjoy reflecting on abstract concepts and forming theories and function well in the traditional classroom. These students are content with lectures, text, and research assignments and are generally able to study successfully on their own.

Convergers are similar to Assimilators in that they take in abstract information, however, they take abstract theories and apply them to real-life problems. They are practically oriented and like to experiment with hands-on technology. These students do well in lab situations where they can apply what they have learned. A professor of these students would need to present factual information and then provide an opportunity to apply that information to a real-life problem.

Accommodators on the other hand, are dynamic learners. They perceive information concretely and process it actively; they integrate experience and application. They learn by trial and error; they are risk takers who are at ease with people. Teachers of these students need to enable their self-discovery with curricula geared to the learners' interests (i.e. inductive rather than deductive approach). These students like variety in instructional methods and especially enjoy experiential learning.

Divergers are imaginative learners who integrate their experience with the self. They learn by listening and sharing ideas and can view direct experience from many perspectives. Teachers of these students should encourage their personal growth and insight and allow time for discussions and group work. These students need to be personally involved in their learning and seek authentic experiences. The arts and entertainment, literature and social sciences are areas where these students excel.

At-risk Personality Types

Within the population of students attending the SI sessions was a minority group who identified themselves as *Passive-Dependent* and *Passive-Independent*. These students are the least likely to get the help they need when they are having difficulty in a course. They have low energy and motivation; however, the *Passive-Dependent* students need approval and thus are more likely to get help than the *Passive-Independent* students who do not look to others for approval. How can we give the *Passive-Independent* students support and help them succeed when their basic personality weighs against them? Strategies and methods that are researched as effective can be implemented with these particular students in mind and then evaluated as to their effectiveness.

The Supplemental Instruction program coordinator collaborated with the Faculty Center for Teaching and Learning (FCTL) at UCF which provided guidance and assistance with the data collection and analysis. In future evaluations, attention will be given to

broadening the base of this research and adding to it the characteristics of Non-SI students in the Supplemental Instruction college courses. The FCTL is also considering using these same instruments to characterize professors and their personalities and teaching styles. An overall picture can then be created which shows the student types along with the teacher types.

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